ABSTRACT OF THE DISCLOSURE

The invention relates to novel nucleic acids encoding a mammalian adventitia inducible and bone expressed gene designated REMODEL, and proteins encoded thereby, whose expression is increased in certain diseases, disorders, or conditions, including, but not limited to, negative remodeling, arterial restenosis, vessel injury, ectopic ossification, fibrosis, and the like. REMODELIN also plays a role in cell-cell and cell-matrix adhesion, bone density, bone formation, dorsal closure, bone mineralization, calcification/ossification, and is associated with *spina bifida*-like phenotype. In addition, the invention relates to affecting REMODELIN expression by administration of TGF-β and control of cellular gene expression using REMODELIN. The invention further relates to methods of treating and detecting these diseases, disorders or conditions, comprising modulating or detecting REMODELIN expression and/or production of REMODELIN polypeptide.